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THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor : NOBUO SASAKI

Serial No. : 09/854,639

Filed : May 14, 2001

Title : PORTABLE ELECTRONIC DEVICE,  
ENTERTAINMENT SYSTEM AND METHOD  
OF OPERATING THE SAME

Examiner : J. HOTALING

Group Art Unit : 3713

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June 7, 2001

Assistant Commissioner for Patents  
Washington, D. C. 20231

SUPPLEMENTAL PRELIMINARY AMENDMENT

S I R:

This application is a continuation of 09/322,774,  
filed May 28, 1999.

Further to the preliminary amendment submitted on May  
14, 2001, please amend the application as follows:

IN THE CLAIMS:

Please cancel claims 1-20.

Please add the following claims:

22.(New) A portable electronic device having an  
interface for connecting said portable electronic device to  
a host machine having a program-execution function,  
comprising:

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an identification-number holder section for holding proper identification numbers;

a memory for loading a conversion table containing gene information corresponding to said proper identification numbers; and

a character-information generation section for generating proper character information in accordance with at least said gene information.

23.(New) The portable electronic device according to claim 22, further comprising:

an input-operation section for executing an input operation;

an operation-information generation section for generating operating information in response to said input operation at said input-operation section; and

a memory for storing said operation information from said operation-information generation section, wherein

said character-information generation section generates said proper character information in accordance with at least said gene information and said operation-information.

24.(New) The portable electronic device according to claim 22, further comprising:

a timer for continuously generating time information,

wherein said character information generation section generates said proper character information in accordance with at least said gene information and said time information.

25.(New) The portable electronic device according to claim 22, further comprising:

a display section for displaying a character image based on said character information generated by said character information generation section.

26.(New) The portable electronic device according to claim 22, wherein said character information generation section is adapted to transfer said character information to said host machine.

27.(New) The portable electronic device according to claim 22, wherein said gene information comprises information regarding multiple portions of at least a face of an individual designated by a character image generated

based on said character information, and wherein said information regarding multiple portions is given in the form of a one-dimensional array.

28.(New) The portable electronic device according to claim 22, wherein said gene information comprises a one-dimensional array filled with maximum values of latent abilities of an individual designated by a character image based on said character information.

29.(New) The portable electronic device according to claim 22, wherein, given said gene information as a first gene information and another gene information supplied from another portable electronic device connected to said host machine as a second gene information, said character information generation section generates another character information based on at least said first and second gene information.

30.(New) The portable electronic device according to claim 29, wherein, given gene information from which said another character information are generated as third gene information, said character information generation section is adapted to determine k-th column of said third gene

information from corresponding k-th columns of said first and second gene information through a predetermined rule, for  $k = 1, 2, \dots, n$ .

31.(New) The portable electronic device according to claim 30, wherein said character information generation section performs a mutation process in generating said third gene information.

32.(New) The portable electronic device according to claim 31, wherein variation amount for certain columns in said third gene information are determined by random numbers in said mutation process.

33.(New) The portable electronic device according to claim 30, wherein said predetermined rule is a selection rule for selecting either one of the k-th columns of said first and second gene information as the k-th column of said third gene information.

34.(New) The portable electronic device according to claim 30, wherein said predetermined rule is a rule for calculating the average value of the k-th columns of said

first and second gene information as the k-th column of said third gene information.

35.(New) The portable electronic device according to claim 30, wherein said predetermined rule is a rule for using linear interpolation of k-th columns of said first and second gene information in determining the k-th column of said third gene information.

36.(New) The portable electronic device according to claim 30, wherein said character information generation section is adapted to search said conversion table for a proper identification number corresponding to said third gene information.

37.(New) The portable electronic device according to claim 36, further comprising:

a memory for storing said proper identification number corresponding to said third gene information.

38.(New) The portable electronic device according to claim 22, wherein, given said gene information as a first gene information and another gene information provided by another portable electronic device connected to said host

machine as a second gene information, said character information generation section exchanges said first and second gene information in accordance with an exchange instruction.

39.(New) An entertainment system including a host machine having a program-execution function and subordinate machines equipped with an interface for connecting said subordinate machines to said host machine, wherein

said host machine transfers to said subordinate machines information obtained by execution of a program; and

said subordinate machines have an identification-number holding section for holding proper identification numbers;

a memory for loading a conversion table containing gene information corresponding to said proper identification numbers, said conversion table received via said host machine; and

a character-information generation section for generating proper character information in accordance with said gene information and for transferring said proper character information to said host machine.

40.(New) The entertainment system according to claim 39, wherein said host machine transfers to said subordinate machines a conversion table designated by the identification number transferred from said subordinated machines.

41.(New) An image generation method comprising the steps of:

receiving a conversion table which includes gene information corresponding to proper identification numbers;

generating proper character information in response to at least said gene information; and

generating a character image based on said character information.

42.(New) The image generation method according to claim 41, further comprising the step of:

generating operation information in response to an input operation performed at an input operation section,

wherein said proper character information is generated in accordance with at least said gene information and said operation information.



43.(New) The image generating method according to claim 41, further comprising the step of:  
continuously generating time information,  
wherein said proper character information is generated in accordance with at least said gene information and said time information.

44.(New) The image generating method according to claim 41, wherein said gene information comprises a one-dimensional array that includes information regarding multiple portions of at least a face of an individual designated by said character image based on said character information.

45.(New) The image generating method according to claim 41, wherein said gene information comprises a one-dimensional array filled with maximum values of latent abilities of an individual designated by said character image based on said character information.

46.(New) The image generating method according to claim 41, further comprising the steps of:  
given said gene information as a first gene information and another gene information different from

said first gene information as a second gene information,  
generating third gene information based on at least said  
first and second gene information;

generating another character information based on  
said third gene information; and

generating a character image based on said  
another character information.

47.(New) The image generating method according to  
claim 46, wherein k-th column of said third gene  
information is generated from k-th columns of said first  
and second gene information through a predetermined rule,  
for  $k = 1, 2, \dots, n$ .

48.(New) The image generating method according to  
claim 47, wherein said step of generating said third gene  
information comprises a mutation process.

49.(New) The image generating method according to  
claim 48, wherein said mutation process comprises  
determining variation amount for certain columns in said  
third gene information by random numbers.

50.(New) The image generating method according to claim 47, wherein said predetermined rule is a selection rule for selecting either one of the k-th columns of said first and second gene information as the k-th column of said third gene information.

51.(New) The image generating method according to claim 47, wherein said predetermined rule is a rule for calculating the average of the k-th columns of said first and second gene information as the k-th column of said third gene information.

52.(New) The image generating method according to claim 47, wherein said rule is a rule for using linear interpolation of the k-th columns of said first and second gene information in determining the k-th column of said third gene information.

53.(New) A recording medium storing at least a conversion table which includes gene information corresponding to proper identification numbers and a character image generation program, wherein said character image generation program comprises procedures for:

reading said conversion table;

generating proper character information in  
accordance with at least said gene information; and  
generating a character image based on said  
character information.

R E M A R K S

Claims 1-20 have been canceled. New claims 22-53 have  
been added. Claims 22-53 are supported by the original  
specification. No new matter has been added.

Enclosed is a check in the amount of \$736.00 for added  
claims.

Any fee due with this paper, not fully covered by an  
enclosed check, may be charged to Deposit Account 08-1634.

Respectfully submitted,

  
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